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**ABSTRACT**

Cooperative learning is a teaching strategy involving students in small group learning activities that promote positive interaction. Cooperative learning is one of the most thoroughly researched strategies available to educators. Studies have consistently found that cooperative learning promotes increased academic achievement and can be implemented relatively easily and at reasonable cost. Improved behavior, increased liking of class, and better attendance are also benefits of cooperative learning strategies. Cooperative learning should be of particular interest to teachers of middle school children because, in addition to the highly desired outcomes described, cooperative learning enhances student motivation by providing peer support for students. It also encourages group processes and positive social and academic interaction among students, and rewards successful group participation. By encouraging positive student interaction and building group skills, teachers can positively increase the academic success and self-esteem of their students. (Four learning activities, 23 references, and 12 resources for activities which promote cooperation are attached.) (RAE)

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# COOPERATIVE LEARNING IN THE MIDDLE SCHOOL

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Cooperative learning is a teaching strategy involving students in small group learning activities that promote positive interaction. Cooperative learning is one of the most thoroughly researched strategies available to educators. Studies have consistently found that cooperative learning promotes increased academic achievement and involves relative ease of implementation and reasonable costs. Improved behavior, increased liking of class, and better attendance are also benefits of cooperative learning strategies. (Slavin, 1987)

Cooperative learning should be of particular interest to teachers of middle school children because, in addition to the highly desired outcomes described, cooperative learning promotes student motivation, encourages group processes and positive social and academic interaction among students, and rewards successful group participation.

According to Glasser (1986), students' motivation to work in school is dependent on the extent to which students' basic psychological needs are met. Because traditional teaching methods often do not meet these basic needs, Glasser asserts that by the time students reach middle school, half or more of them have stopped actively trying to achieve in school. Cooperative learning increases student motivation by providing peer support for students. Students, as part of a learning team, can achieve success by working successfully with others. Students are also encouraged to learn material in greater depth and to think

of creative ways to convince the teacher they have mastered required material.

Cooperative learning helps students at every academic level to feel successful and productive in class. In cooperative learning teams, low achieving students can make contributions to a group and experience success, while all students can increase their understanding of ideas by explaining them to others. (Harvard, 1986)

Components of the cooperative learning process as described by Johnson and Johnson (1984) are complimentary to the goals of school excellence. For example, well constructed cooperative learning tasks involve positive interdependence on others and individual accountability. To work successfully in a cooperative learning team, however, students must also master interpersonal skills needed for the group to successfully accomplish its task.

Further, cooperative learning has been shown to improve relationships between students from different ethnic backgrounds. Slavin (1980) notes: "Cooperative learning methods embody the requirements of cooperative, equal status interaction between students of different ethnic backgrounds sanctioned by the school."

Traditional classroom teaching has stressed competition and individual learning for the majority of learning activities. When students are given cooperative tasks, however, learning is assessed individually, and rewards are given to the group on the basis of the group's performance,

advantages of cooperative learning strategies seen most clearly. (Harvard, 1986)

Cooperative learning techniques which have been identified by researchers include STAD, TGT, Jigsaw, Learning Together, and Group Investigation. STAD is perhaps the easiest of these strategies to implement since content can be presented in the way the teacher has traditionally presented the lesson and individual assessment can utilize the same criteria and methods the teacher has traditionally used. After the lesson has been presented, student teams work on assignments cooperatively to master material. In studies conducted by Newmann and Thompson (1987), STAD is the most successful of the cooperative learning techniques studied when compared with traditional teaching methods, providing a higher percentage of academic success for secondary school students in 89 per cent of the studies investigated by the authors.

TGT, short for Teams-Games-Tournaments, is similar to the STAD strategy. After working with team members to learn material, students compete with others of like achievement to earn points for their team. Individual assessment is then conducted.

Learning Together is a process defined by Johnson and Johnson (1984). Students are given cooperative tasks which create positive interdependence and encourage group interaction. Rewards are given for both individual and group performance.

Group investigation requires students to work together to complete tasks by deciding what information is needed, how the information will be organized, and how the information will be presented. In organizing the tasks and facilitating the group work, teachers encourage application, synthesis, and inference.

Frank Lyman of the University of Maryland has developed a cooperative learning technique known as Think-Pair-Share. Think-Pair-Share can improve student participation and interest in class discussions. Because the technique is easily implemented, it can provide a successful first experience in cooperative learning for middle school students. In Think-Pair-Share, students listen while the teacher poses a question or problem related to the learning objective. The students then think of responses or possible answers to the question or problem individually. After students have had the opportunity to consider the question or problem individually, they pair with another student to discuss their responses. Responses from the pair discussions can then be shared with the group. Think-Pair-Share allows each student to become actively involved in learning by sharing their ideas with at least one other student.

Glasser (1986) notes: "We will not improve our schools unless we try to offer what we want to teach in a recognizably different form from the way we are presently teaching." By encouraging positive student interaction and

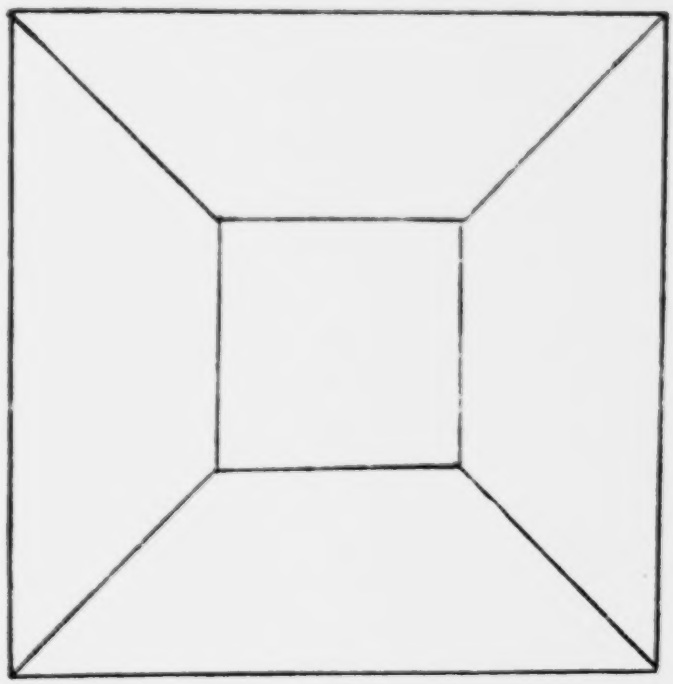
building group skills, teachers can positively increase the academic success and self-esteem of their students.

The middle school classroom can offer many opportunities for students to begin to work together cooperatively. By structuring cooperative activities in the classroom, the teacher increases student liking for other students, encourages positive attitudes towards school, and builds an atmosphere of support and acceptance.

## Activity 1--Alike and Different

Objective: Through discussion in heterogeneous small groups, students will discover qualities, traits, and attitudes held in common with other students, and qualities which may be unique or special.

Procedure: Students are grouped in heterogeneous groups of 3 or 4. Students cooperatively list at least 10 things they share in common in the middle box. The commonalities may be things mutually liked, place of birth, travel, concerns, dislikes, interests, family characteristics, appearance, etc. Then, two things unique about each student in the small group are listed with each outer quadrilateral surrounding the center box representing one student. After the first two tasks are completed, students agree as a group about one characteristic they share in common that other groups did not list, even though they might share it. A representative of each group then orally shares the factor chosen by the group and other groups report as to whether or not they had identified that factor in their own group.



Adapted from: Affective Education Guidebook, by Bob Eberle and Rosie Emery Hall, Buffalo, New York: D. O. K. Publications, 1975, pps. 42-43.

## Activity 2--Categorization

A cooperative activity most middle school students find challenging and interesting involves the use of categories. Students are given a number of categories, and letters to think of words that would fit into those categories. The categories can be adapted to specific skills and subject areas. A sample follows:

| Category | S | T | A | R |
|---|---|---|---|---|
| Cities of the U. S. | San Diego<br>Sacramento | Texarkana<br>Topeka | Akron<br>Albuquerque | Raleigh<br>Roanoke |
| Sports Teams | Seahawks<br>Saints | Tigers<br>Twins | A's<br>Angels | Rangers<br>Raiders |
| Foods or Drinks | Soda<br>Salad | Tea<br>Three-minute egg | Apple pie<br>Apricots | Rice<br>Raisins |
| Mammals | Seal<br>Skunk | Tiger<br>Teenager | Aardvark<br>Armadillo | Rottweiler<br>Retriever |

Initially, categories should be selected which give all students a chance for successful participation in the group. As students become familiar with the activity, categories appropriate to a specific subject area, unit, or topic can be used, or students can create their own categories.

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## Activity 3-Brainstorming

Brainstorming is another activity that can be useful in a number of subject areas and with a variety of topics. The purpose of brainstorming is to encourage creative thinking on the part of students. This is done by working towards three goals: fluency, flexibility, and originality.

Fluency requires the production of a large number of ideas. At first, these ideas are not evaluated, and many may appear to be impractical. By avoiding evaluation in this phase of brainstorming, however, creativity and unusual approaches to problem solving are encouraged.

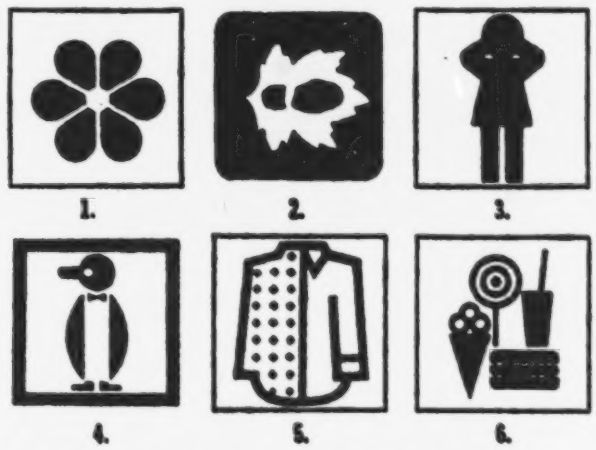
Originality involves the production of ideas that are new and innovative. A way to assess the originality of ideas is to check with other groups of students to see if they thought of the idea. Ideas which no other group thought of should be rewarded as original.

Flexibility encourages students to think beyond established patterns or structures. In solving a problem, the students are encouraged to think of different categories of solutions. For example, in solving the problem of forgetting to bring books they took home back to school, the following categories might be possible for solutions:

| CATEGORIES | POSSIBLE SOLUTIONS |
|---|---|
| Do something with the books. | 1. Don't take books home.<br>2. Don't go home.<br>3. Buy an extra set of books for home.<br>4. Carry the books with me all the time (to dinner, when playing, on a date)<br>5. Put the books near the clothes I will wear tomorrow.<br>6. Put the books in the car I will ride to school in tomorrow. |
| Do something with me. | 1. Tie a string around my finger.<br>2. Write a note on my arm before I go to bed.<br>3. Pin a note to my pajamas. |
| Think of reminders. | 1. Put a note by the door.<br>2. Put a note on refrigerator.<br>3. Put a note on the mirror.<br>4. Tie a string to my house key. |
| Use others. | 1. Ask my mom to remind me.<br>2. Have a friend call in the morning to remind me.<br>3. Ask my sister to remind me. |

A brainstorming activity could be constructed using the following newer international sign symbols:

USA Weekend, November 25-27, 1988, p. 15



Try to match these new international symbols with their meanings:

A. Keep frozen
B. Lost child
C. Synthetic/cotton
D. Snack bar
E. Florist
F. Nature trail

Answers: 1-E, 2-F, 3-B, 4-A, 5-C, 6-D

Using the six symbols, students could be asked to think of as many different interpretations of the signs as they can. For fluency, groups finding the most different ideas for each sign would be rewarded. For originality, creative and unusual ideas would be encouraged by rewarding groups who thought of one or more interpretations not thought of by other districts. Flexibility can be encouraged by asking students to think of reasons why international signs are a useful idea. Groups who think of ideas which they can then organize into the most categories would be rewarded. (Example: "people reasons", "money reasons", "safety reasons", etc.)

## Activity 4--Twenty Questions

The traditional game of twenty questions provides opportunities for student cooperation and higher level thinking. Students can be given subject area related topics to use in the game. A student in the group will select one of the items on his or her card. A card might have one answer in each of the categories being used. In no more than twenty questions which can be answered yes or no, the students must discover the answer. A variation from the game, however, is that the person answering the questions does not try to mislead or misdirect in any way. The goal is for the group to get the answer in as few tries as possible.

Sample (categories: Animal, Celebrity, Famous Place)

| | |
|---|---|
| Card Number 1<br><br>Penguin<br>Mike Tyson<br>Yellowstone | Card Number 2<br><br>Anteater<br>Michael Jackson<br>Rocky Mountains |
| Card Number 3<br><br>Panda Bear<br>Orel Hershiser<br>Great Salt Lake | Card Number 4<br><br>Lion<br>Mike Hayden<br>White House |

Students can also be encouraged to make up their own categories and answers.

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